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ABSTRACT

The persuasive writings of 14 teacher education students considered to be exemplary writers were examined to determine what variations occurred across topics and across writers. The stability of the T-unit (the main clause and all its subordinate clauses) as an indicator of writing ability was also tested. All the subjects wrote compositions on five topics, creating a total sample of 70 persuasive writings. These compositions were segmented into T-units and clauses to yield four descriptive scores: total number of words, words per T-unit, subordinate clauses per T-unit, and words per clause. There was a significant degree of structural variation according to topics. The variations occurred both in the overall length of T-units employed and in the number of subordinate clauses within each T-unit. Individual style was reflected with some precision in the indexes that were used. Students who wrote long T-units in one topic tended to write long T-units on the other topics. (RL)

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STRUCTURAL VARIATION IN FIVE PERSUASIVE WRITINGS OF MATURE WRITERS

by

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Structural Variation in Five Persuasive Writings of Mature Writers

Some research in writing has examined the effect of mode of discourse (persuasive, expository, descriptive, and narrative modes) upon the nature of language produced. Seegars (1933) completed a definitive study of this effect employing the tools of traditional grammar. San Jose (1972) and later Perron (1976a, 1976b, 1976c, 1977) confirmed the marked influence of mode in light of current grammatical theory. To date, no sufficient study of the influences within modes has been reported in spite of repeated suggestions that variation within modes and within individual students be studied. The present study, then, attempts to address the question of intra-modal influences directly.

Research studies into the development of syntactic complexity (Hunt, 1965, 1970; O'Donnell, Griffin & Norris, 1967) and subsequent studies on promoting that complexity (Mellon, 1969; O'Hare, 1973; Combs, 1976) have limited themselves to an analysis of descriptive and/or narrative modes of writing. While this does control for the differential influence of mode, it does not describe that influence fully. Only Combs and Wilhelmsen (1979) reported the effect of sentence-combining practice showed that complexity rose more dramatically (Words per T-unit) in the students' persuasive writing than their descriptive writing. Since the sentence-combining corpus presented considerable practice in subordinating clauses, the greater increase was not surprising. Crowhurst (1979) claims that

persuasive writing assignments encourage students to write more subordinate clauses per T-unit than other modes. Certainly, Combs and Wilhelmsen's persuasive topics combined with extensive practice with techniques of subordination account for the greater gains. But the differences across modes may be contaminated by influences of the immediate language situation which have yet to be fully explored.

The need to look at additional influences, especially those within mode, is best illustrated by the studies of the influence of mode themselves. In establishing differences among modes, Perron discovered that the relationship of those modes changed across Words/T-unit, Clauses/T-unit, and grade level.

Table 1

Relationship of Modes of Writing:
Persuasive(P), Expository(E), Descriptive(D), and Narrative(N)

Research Study	Syntactic Index		
	Words/T-U	Words/Cl	Clause/TU
Perron (1976a)	P > E = N > D	P > N > E > D	E = P > D > N
Perron (1977b)	P > N = E > D	P > N > E > D	P = E > D > N
Perron (1978c)	P > E > N > D	P > N > E > D	E = P = D > N (E > D)

Seegars and San Jose found no significant differences between persuasive and expository modes nor descriptive and narrative modes (relationship: P = E > D = N). It appears, however, that the primary aim of these studies was to establish variation among modes. The consistent variation among

modes (or lack of it) needs yet to be established. According to Table 1, a study of possible influences (i.e., factors of the immediate situation) that disallow consistent variation among modes is appropriate.

Some possible factors of the immediate situation come from research in child language development. Cazden (1970) thoroughly describes a wide range of studies that identify and examine the effects of topic, tasks, status of participants and initiator of interaction on the speech of young children. She shows that if children know the topic, task and audience better, they tend to produce more and more complex language. The same is true if they initiate the speaking. Consequently, much of the research in child language development has kept discrete control over these variables in design and procedures. The same cannot be said for research into the nature of the writing process and products. Most often empirical studies compare the performance of "traditional" and "experimental" groups--the traditional treatment not described and the experimental treatment filled with tasks of immense variety. One could cite many excellent studies as cases in point. This is the case in Fox's (1980) well-executed examination of the claim that traditional modes of instruction encourage harmful writing apprehension. What Fox has established is that Daly's (1979) influences from his results were not warranted. But neither study thoroughly parcels out factors of the immediate writing situation which could predictably have an effect upon writing apprehension, the nature of the writing process, and subsequently, the final product.

Research into the composing process also pays little attention to influences of the immediate situation described by Cazden. Perl (1979) describes the writing tasks assigned to poor writers in her case study:

> The topics for writing were developed in an introductory social science course in which the five students were enrolled. The "content" material they were studying was divided into two modes: extensive, in which the writer was directed to approach the material in an objective, impersonal fashion, and reflexive, in which the writer was directed to approach similar material in an affective, personalized fashion...the teacher was always the audience.

Topic and audience (can one be certain it was the teacher?), then, were not specified, and one cannot be certain that either factor did not influence the outcome of the study significantly. Later reference to the two modes shows that one student's basic writing procedures were constant across modes. The reflexive mode encouraged greater fluency (total number of words) and the extensive mode encouraged greater repitition of recursive behavior (recursion was the most salient feature of the student's process--"at one moment [he was] writing, moving the ideas forward; at the next [he was] backtracking, rereading, and digesting what had been written").

Differential qualities in writing produced by mode were not mentioned. Either these effects were outside the scope of the study (one wonders why they were included in the design if this is the case) or that the two modes of writing did not distinguish themselves from one another in the final products. The former explanation is likely since discussion of modes of process (see Emig, 1971; Britton, et al. 1975) have generally omitted description of writing products. Britton et al. claim that process can be determined from products, but set no procedures for so doing.

The rationale for excluding factors of the immediate language situation is not always clear, but whatever it is, its omission militates against efficient progress in writing research. Witte and Davis (1980) note that even after 20 years of research into the development of syntax in writing, O'Donnell (1976) must write "there are no data to show how consistently these indices (T-unit length and number of clauses per T-unit) measure the structural complexity of an individual's writing in various situations" (p. 33). The one exception is O'Donnell's (1974) own analysis of one author's prose in which the differences in writing situation could not be described. This paucity of information about variety in language structure is unfortunate since a common tendency among researchers in writing is to discuss general implications of their research for development of writing in students. The assumptions implicit in such generalizations are that syntactic complexity (and writing complexity) is stable within individual performances and modes.

Witte and Davis (1980) examine these two assumptions, a timely undertaking to be sure. Their cautiously-reported procedures are indications that the syntactic character of writing is not as stable as many assume. It is unfortunate, however, that the study must remain so tentative in its claims. But it supports nothing stronger. There are only two samples of writing to serve as indicators of variation within mode. Common sense indicates at least three samples are needed to note a trend and four or five would be needed to establish reliable descriptive validity of such trends. Also, two writings on a single day (in fact, in a 90-minute period) confound the procedures to such a great extend as to overshadow the authors fear "that subjects received no additional instruction on

techniques of descriptive writing." The solution is to select subjects from other than a writing class.

These aberrations in design are enough to weaken the claims in themselves, but two other matters should also be noted. Forty five-minute periods were allowed for descriptive writing while 75 minutes were allowed for the narrative writing. The difference in time could certainly influence the outcome. Last of all, if variation within and across mode is not fully understood, one must design the study to reflect that lack of understanding. Witte and Davis's study is not so designed. Since they suspect significant variation within and across modes, they needed several writings in each mode to adequately handle the questions. As a group, other studies of syntax and modes find narrative writing to be in one situation more complex than the descriptive writings, in another less complex than the descriptive, and in a third insignificantly different from descriptive writings. Witte and Davis report greater syntactic complexity in the descriptive mode than in the narrative mode. Studies of modal variation, then, have established significant variation in syntactic complexity, but there is no definitive description of how those variations sort themselves out if they do so at all with consistency.

Witte and Davis underscore the tentative nature of their study, hence, the subtitle "A Preliminary Investigation." But the conscious choices forced by their circumstances confound the results and make their use of "preliminary" an understatement. All we know is that differences across modes exist. The causes have not been explored in a manner that

identifies and describes them in any thorough way. Nonetheless, differences within mode become an even more interesting possibility since Witte and Davis's limited design produced differences that were near the .05 level of significance.

The Present Study

Purpose. The purpose of the study, then, was to examine the writings of students controlled for mode of discourse (persuasive writing) and such basic factors of design as time of day, order of writings, writing instructions (task) and prewriting activities. The need for such a study is supported by the assumption underlying previous related research that one or two writing samples are sufficient to support claims about the syntactic differences across (San Jose, 1972; Perron, 1976a, 1976b, 1976c, 1977 and Witte and Davis, 1980) and within modes (Witte and Davis, 1980).

Questions. The purpose of the present study is to investigate the following questions:

1. Does the structure of mature writers vary significantly according to topic within a single mode as measured by scores of Words/T-unit (W/T), Words/Clause (W/C), Total Words (W), and Subordinate Clauses/T-unit (SC/T)?

2. Is there a measureable degree of stability within each individual's writing as measured by W/T, W/C, W, and SC/T?

Subjects. Fourteen teacher candidates for degrees in English and/or Speech education at the University of Georgia were selected for the study. All students were in their last two quarters of study and had recently taken courses where they had considerable practice in journal writing,

in-class free writing, and the writing of formal course papers. They claimed to enjoy writing and planned to complete some part of their student teaching experiences in composition classes. They were confident and mature writers.

It was critical that the subjects in this study be exemplary writers. Immature or ill-confident writing habits would contaminate the design. After all, the purpose was to study writing, and subjects who produced marginal products could be of little help.

Design and Procedures. Five writings were elicited from the group of mature writers described above. Two writings were collected during each of the two successive weeks and one during a third week. Students agreed that the writing was not unusual in amount and kind for them.

The writings were collected during a "Language Studies for Teachers" course taught during the Winter quarter of 1980. The course topics included traditional grammar, dialects and level of language, and no direct instruction in or suggestions for writing were presented.

Of each class day (8 a.m. to 3 p.m.) selected, 30 minutes was allotted after a morning break for writing. Care had been taken to randomly assign the 15 writers (one writer's efforts were discarded because of absences) to 15 orders of writing. Procedures assured that three students wrote on each topic at each writing. The resulting orders used are listed below:

DABEC	DECAB	EDBAC
ECADB	ABEBC	CDBEA
BCDEA	CADCE	CEDAB
ABCDE	EBACD	DBECA
		DCABE

Each writing period was prefaced with a three-person huddle on one of the five topics selected by the group at the first class meeting. Huddles lasted for 2-3 minutes and provided time for students to brainstorm possible attitudes and reasons for defending or attacking the issues as stated. The selected topics were:

1. Abortion on demand should be unlawful.
2. The Ayotallah Khomeini's request for the return of the Shah should be honored.
3. Athletic scholarships should be limited to payments of tuition only.
4. Gas rationing and minimum performance standards for automobiles should be implemented.
5. I support the move t. raise the legal drinking age for all Georgians to 21.

It should be noted that especially effective sections of five students papers were read prior to writings 2 through 5 to serve as further stimulus for ideas. All writings were first drafts, but students were encouraged to complete their thoughts during the 30-minute period provided.

Method of Analyses. The 70 persuasive writings were segmented into T-units and clauses, and the total number of words was determined following procedures described by Mellon (1969). For each paper, then, there were four descriptive scores: total number of words, Words/T-unit, Subordinate clauses/T-unit, and Words/Clause. One-was ANOVA was employed to determine whether the scores varied significantly by topic. It was assumed that since the toipcs were assigned in a way to control for the effect of order there would be no order effect.

To assess the stability of the T-unit as an indicator of the writing of individuals, the scores were rank ordered within each topic. The five highest and lowest scores for each topic were isolated to determine if the same students econsistently appeared in these groups.

Results and Discussion. The data related to Question 1 appear in Table 2.

TABLE 2

Mean Scores on Indexes of Structual Complexity:
Words per T-unit (W/T), Subordinate Clauses/T-unit (SC/T),
Words per Clause (W/C) and Total Number of Words (W).

Index	Topics				
	A	B	C	D	E
W/T-unit					
$\bar{X}$	16.85	14.26	13.57	14.81	16.65
ΣX	235.92	199.58	190.03	207.32	233.08
W/Clause					
$\bar{X}$	9.66	8.48	9.30	9.18	8.84
ΣX	135.17	118.77	130.22	122.52	123.75
SC/T-unit					
$\bar{X}$	.75	.68	.47	.62	.95
ΣX	10.47	9.55	6.54	8.64	13.29
Words					
$\bar{X}$	371.64	375.29	372.36	328.57	385.79
ΣX	5203.	5354.	5213.	4600.	5401.

The results in Table 3 indicate that Subordinate clauses/T-unit (SC/T) and Words/T-unit (W/T) vary significantly (at the .01 and .05 levels respectively), whereas Words/Clause (W/C) and Total Words (W) do not. It appears that subordinate clauses are encouraged to varying degrees by different topics. These results add to the claim of Crowhurst (1979) that the persuasive mode of writing encourages more clauses per T-unit than other modes. Her claims were supported in differences reported across mode in previous studies (San Jose and Perron), and according to the present data, her claims are supported by the nature of the variation within the persuasive mode. That is, the variation noted within the persuasive mode by topic is accounted for in the number of subordinate clauses used by students

(SC/T), but not the length of those clauses (W/C).

TABLE 3

ONE-WAY ANOVA OF WORDS PER T-UNIT (W/T), SUBORDINATE CLAUSES PER T-UNIT (SC/T), WORDS PER CLAUSE (W/C) AND WORDS (W) IN FIVE PERSUASIVE WRITINGS

SOURCE	SS	df	MS	F	P	η
W/T-unit						
Between	119.16	4	27.79	3.37	.05	.415
Within	574.59	65	8.84			
W/Clause						
Between	11.24	4	2.81	1.44	NS	
Within	126.84	65	1.95			
SC/T-unit						
Between	1.74	4	.438	5.15	.01	.495
Within	5.52	65	.085			
Words						
Between	27274.77	4	6818.69	.670	NS	
Within	661491.07	65	10176.79			

To sort out the significant differences between one writing as compared with each of the other four writings, Dunn's multiple comparison test was employed. According to Tables 4 and 5, the differences on W/T and SC/T are clearer. The differences on W/T are more pervasive (Topics C, B or D contrasted significantly with E or A), than those on SC/T which are clustered around the contrast of Topic E with Topics C and D. Thus, it appears that of the indexes employed here, W/T is the most discriminating index of the significant structural variation by topic that exists within the persuasive mode of writing.

TABLE 4

Dunn's Multiple Comparison of Five Persuasive Writings as Measured by W/T unit

TOPIC	C	B	D	E	A
C	—	.69	1.24	3.08**	3.28**
B	—	—	.55	2.39**	2.59**
D			—	1.89**	2.04*
E				—	.20
A					—

*significant at the .05 level

**significant at the .01 level

TABLE 5

Dunn's Multiple Comparision of Five Persuasive Writings as Measured by Subordinate clauses/T-unit

TOPIC	C	D	B	A	E
C	—	.150	.215	.281	.482**
D		—	.065	.131	.332*
B			—	.066	.267
A				—	.301
E					—

*significant at the .05 level

**significant at the .01 level

Thus, Question 1 can be answered affirmatively. There exists within the persuasive mode of writing a significant degree of structural variation according to topics. The variation occurs both in the overall length of T-units employed and the number of subordinate clauses within each T-unit.

Question 2: Is there a measurable degree of stability within each individual's writing as measured by W/T, W/C, Total Words, and SC/T?

To obtain the data related to Question 2, the number of W/T, W/C, Total Words, and SC/T were rank ordered within each topic. The number of times each student appeared in the top five and bottom five rankings was determined. The results are reported in Table 6.

TABLE 6

PLACEMENT OF STUDENTS IN THE UPPER AND LOWER FIVE RANKINGS IN EACH TOPIC AS MEASURED BY W/T, W/C, W, AND SC/T

Student	W/T		W/C		W		SC/T	
	Top Five	Bottom Five	Top Five	Bottom Five	Top Five	Bottom Five	Top Five	Bottom Five
A	0	(3)	0	(5)	0	(5)	(3)	1
B	1	1	2	2	1	(4)	1	1
C	(3)	1	(4)	0	1	2	1	(3)
D	1	2	2	(3)	(4)	1	1	2
E	(3)	0	2	2	0	(4)	(4)	0
F	0	(3)	1	2	2	2	0	(5)
G	(5)	0	(4)	0	0	0	(3)	1
H	2	2	0	2	1	(3)	(3)	0
I	0	(4)	1	(3)	1	(3)	0	(3)
J	(3)	1	2	2	1	0	(3)	1
K	1	2	2	1	(5)	0	2	2
L	1	2	0	2	(3)	0	1	2
M	(3)	0	(3)	0	(3)	1	2	1
N	1	(3)	2	1	(3)	0	1	(3)

The clear indication here is that in spite of the significant variation encouraged in part by topic, there is stability in the structural character of individual's writing across topics. Students who use more words in a given time period to express their opinions do so across all five topics; five students appear in the top ranking a majority of the time across topics and five appear in the bottom ranking a majority of the time. The same can be said for the W/T and SC/T (except that four students appear the majority of the time in the bottom ranking). It is interesting to note, however, that students are not ranked as consistently across the indexes. Only three students are ranked consistently in the bottom group by three of the indexes, and two students are consistently ranked in the top group by three of the four indexes.

Thus, these data challenge the assumption of the stability of the T-unit across and within modes found in much research in writing (see Witte and Davis, 1980). It does not, however, support Witte and Davis' questioning of the general stability of the T-unit. It appears quite certain that the structural character of individual style is reflected with some precision in indexes employed here.

Question 2, then, must be answered in the affirmative. There is a reportable degree of stability in an individual's writing as measured by the indexes employed in this study. Students who write long T-units in one topic when compared with a peer group tend to write long T-units on another topic in reference to the same peer group. So, even though the variation within mode by topic may be significant, the relative standing of an individual within a reference group appears stable. W/T, W, and SC/T clearly illustrate this point. W/C illustrates it to a lesser degree. Combined with the stability of the T-unit on successive rewritings of a

controlled stimulus passage (Smith & Combs, 1980), the usefulness of the T-unit is more clearer described.

Conclusions

The present study, then, is a preliminary indication of the precise nature of the T-unit's stability. In spite of the significant and well-established differences in an individual's writing across modes (Seegars, 1933; San Jose, 1972; Perron, 1976a, 1976b, 1976c, 1977) and within modes (see Witte and Davis, 1980), there is a tendency among writers to employ structures that are describable and predictable, at least as measured by grosser indexes of structural complexity such as W/T, and SC/T and to a lesser extent W and W/C.

The significance of this finding, if borne out in further research, is that we know better what information indexes such as W/T and SC/T provide. Since this is one of the first studies to consider the structural variation within mode, there is a need for additional research into the question using larger and diverse samples of subjects. In these data, however, we do have a clear indication that variables of the immediate writing situation must be taken into account when employing structural indexes such as these. If the variable of topic is not controlled, the results of an empirical assessment of writing are subject to question. Further research that isolates the effect of variables other than topic mentioned by Cazden (1970)--task, audience, and initiator of language produced--is needed.

Once we have a better informed notion of how these factors of the immediate writing situation influence the nature of an individual's writing, our knowledge about the composing process should become more

manageable. It appears that the researcher in writing should not feel forced to choose between research that isolates variables to the point that the composing process is unusually constrained and "natural" or "enthnographic" research that imposes few if any constraints. It does, however, a-pear incumbent upon researchers to operate with the best knowledge we have in each of these strands of methodology. Researchers operating in ignorance of the contributions in either strand are not working up to their full capacities.

Fortunately, in our pursuit of the composing process and its subsequent products, there is an index that retains its reliability and informative powers. The T-unit, as gross as the information it produces may be, appears to be providing even more information than has been earlier noted. If the claims of this study are supported in subsequent research, we may be closer to describing, and subsequently teaching about and encouraging, individual writing styles.

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